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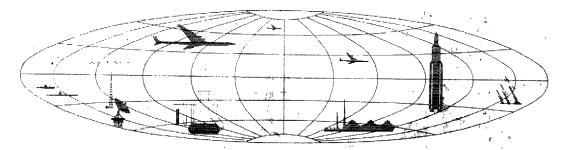
PHOTOGRAPHIC INTERPRETATION REPORT

SENSITIVE OPERATIONS COMPLEX NEAR BULYZHINO, USSR





NATIONAL PHOTOGRAPHIC INTERPRETATION CENTER .



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SUMM	AARY
A large, unusual installation is located in a forest near Bulyzhino, USSR. Key features of the installation are its large candelabra-type rail facility and a large, separately secuted operations area containing six unusual bunkers in various stages of construction. A determination of the function of the Bulyzhino installation will allow identification of six similar installations	(at Rechitsa, Zhukovka, Mikhaylovka, Boriso-glebsk, Nyandoma, and Chaadayevka), which differ only in internal arrangement. All seven installations are located within the European USSR. Two other Soviet installations (at Golovchino and Chebsara)
INTROD	UCTION
A large, unusual installation (56-13N 28-18E) is located 5.5 nautical miles (nm) southwest of Bulyzhino, USSR, 2.8 nm southeast of Glembochino, and 4 nm east of the border of the Latvian SSR inside the Russian SFSR (Figures 1 and 2). The installation is served by a rail spur from the Moscow-Riga rail line. The in-	and bunker construction in the future Operations Area had not commenced. No security measures were evident. On the next photography, that of December 1961 one large excavation was under way and a second one had been started in what was later identified as the Operations Area,
stallation includes an operations area and a rail facility as well as a construction support area, a barracks area, a motor pool, and a large waste basin.	and the waste basin was first observed. In February 1962 a loop road was being built in the Operations Area. By August 1962 six barracks were com-
This report is based on excellent-quality photography from Mission 1004-2 of February 1964. The availability of excellent-quality photography of the Bulyzhino installation provides	pleted and footings for the first bunker were in place. The Operations Area had not vet been fenced. On photography of June 1963
more detail than is available on the six other similar unidentified installations, which have not had such photographic coverage (Table 1). A	the Operations Area where a large drive-through building and one other large building were also observed. Photography of July 1965 showed security fencing around the Opera-
comparison of these installations is a concluding chapter of this report. The first photography of the Bulyzhino installation was obtained from August 1961. At that time the Rail Facility appeared complete, four of the present eight	tions Area for the first time and three bunkers under construction. Two of the bunkers there were complete and earth covered by December 1963 although none of them appeared earth covered on the intervening photog-

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barracks of the Barracks Area were complete,

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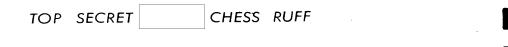
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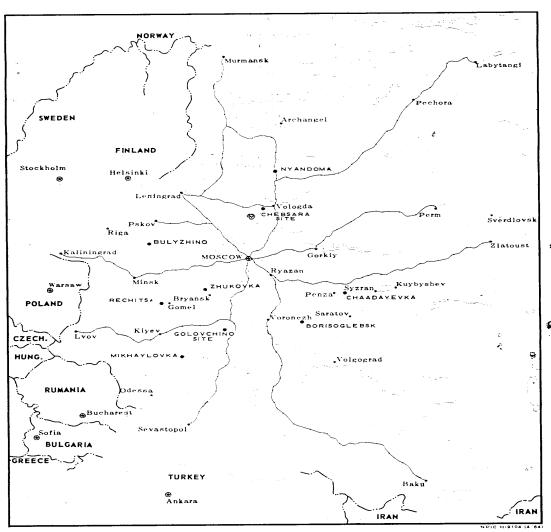


FIGURE 1. LOCATIONS OF BULYZHINO AND SIX SIMILAR INSTALLATIONS.

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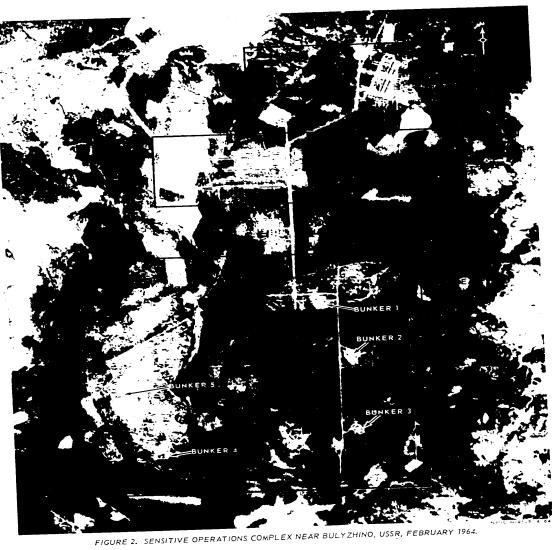


FIGURE 2. SENSITIVE OPERATIONS COMPLEX NEAR BULYZHINO, USSR, FEBRUART 1704.

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OPERATIONS AREA

The Operations Area is located in a dense, coniferous forest approximately 4,500 feet south of the Rail Facility (Figure 2). The area is secured by a wire fence. While only one fence line can be traced around the entire area, the number of fences enclosing the Operations Area is not known. At the northeast corner of the area seven parallel traces are visible in the forest. The area secured measures approximately 9,200 by 8,000 feet. Access to the area is controlled by a security building, located just outside the area on the west side of the central service road.

The Operations Area will be served internally by a well-engineered loop road which joins the central service road at right angles, just inside the area. The loop road appears 90 percent completed. Its roadbed has been built up at several places to maintain its grade. The rightangle turns of the loop road and the central service road have been rounded with radii of approximately 110 feet. In the northwest corner of the area, an old road is being utilized during construction of a probable sixth bunker. However, the placement of the probable bunker near the upper leg of the loop road suggests that the old road will be abandoned and that the northwest corner of the loop road will be extended to serve the new bunker.

Bunker 1 (Figure 3). Just south of the junction of the central service road and the loop road, an extension of the central service road serves a drive-through building

This building has a longitudinal high-bay center section. Two 30-foot-wide low bays (one-story high) are located on both sides of the center section and may contain shop space. The turns of the roads serving this building are sharp, having only minimal

Two buildings are located in the vicinity of

rounding, and thus, the roads for this building probably cannot handle the same type of traffic as the loop road. A second building, is located just north of the loop road, east of the junction of the loop road and the central service road. The building is road served

but has no drive-through feature.

Bunker 1 (Figure 3) is located approximately 900 feet east of the intersection of the loop road and the central service road. It is heavily earth covered. The covered bunker measures approximately 400 feet across at the base and about 225 by 200 feet at the top. A single boxlike entrance 70 feet wide projects from the east side of the bunker. The road serving the bunker joins the loop road about 300 feet east of the bunker.

Bunker 2 (Figure 4) is located about 2,700 feet south-southeast of Bunker 1 on the east side of the loop road. It is also earth covered. The bunker measures approximately 400 by 320 feet at the base and about 210 feet square at the top. A raised portion, measuring approximately 115 feet in diameter, is located near the southwest corner of the bunker. A boxlike entrance, measuring 70 by 70 feet, protrudes from the northwest end of the bunker and a similar entrance is located at the southeastern corner. The entrances to the bunker are 90-degrees opposed and at opposite corners. This arrangement inhibits vehicular movement within the bunker and, thus limits the size of objects that can be handled. The bunker has no drive-through arrangement.

Bunker 3 (Figure 5) is also on the east side of the loop road, 3,100 feet south of Bunker 2. Although the bunker itself is apparently completed, it is not yet earth covered. It is a massive L-shaped concrete building, sited within an excavation. The main body of the building and the entrance wing meas-

and the entrance wing meas ures 70 feet square.

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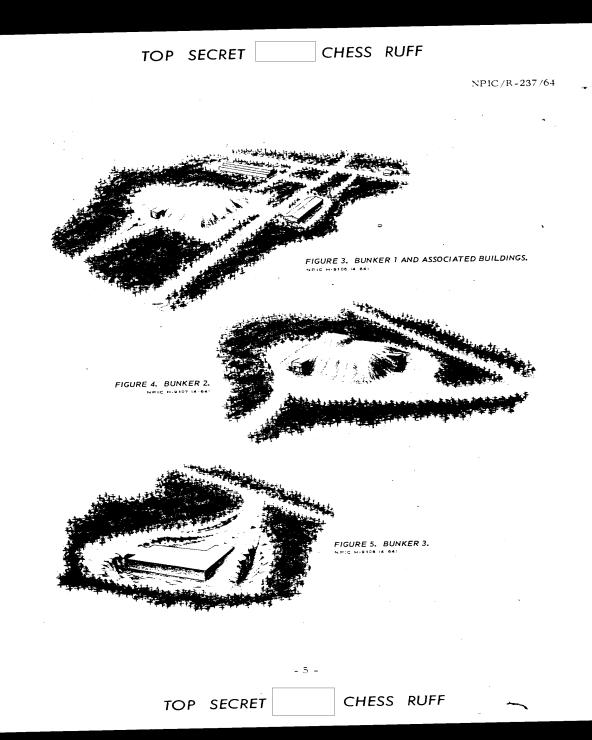
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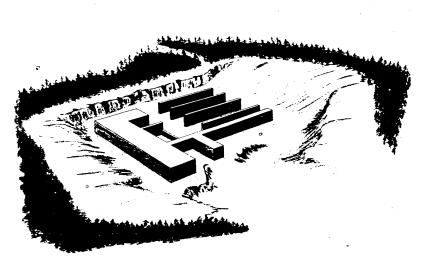
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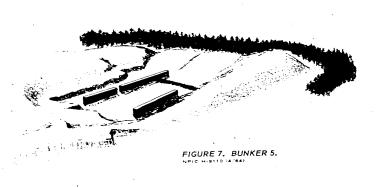




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FIGURE 6. BUNKER 4.



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Bunker 4 (Figure 6) is under construction approximately 6,900 feet west of Bunker 3. The bunker, which is sited in an excavation, measures 230 by 115 feet overall. Erected walls in the unroofed portion of the building show that part of the building is divided into four bays each Exterior and interior wall thicknesses cannot be determined. The bays are at right angles to an open center aisle

Bunker 5 (Figure 7) is located approximately

8,400 feet west of Bunker 2 and 3,000 feet north-northwest of Bunker 4. The bunker is in a very early stage of construction. At present the overall dimensions indicated by partially erected walls are 200 feet. No notable features were evident.

An excavation located 3,000 feet north of Bunker 4 and 7,500 feet west of Bunker 1 probably marks the intended location of a sixth bunker. No construction has taken place as yet within the 300- by 225-foot excavation.

RAIL FACILITY

The prominence of elaborate candelabra rail facilities led to the discovery of the seven installations of the Bulyzhino type. Although the rail facility (Figure 8) at Bulyzhino is obviously capable of handling a fairly large volume of rail traffic, there is no evidence of a road/rail transloading facility. All four of the rail spurs are at right angles to the central service road. No road turnoff into the rail facility is visible.

Not all details of security are discernible at the Rail Facility of the Bulyzhino installation. The facility at Bulyzhino is probably secured because the rail facility observed at the Chaadayevka installation is fenced. The Bulyzhino facility has four rail spurs (designated A-D), which are apparently grouped to serve construction and operations at the installation.

Spurs A and B are spaced 520 feet apart. Spur A serves the construction yard where a large concrete batch plant, four warehouses, and several piles of aggregate are located. This spur and the construction yard are enclosed by a solid fence or wall. Spur B lies outside the construction yard, and appears to have a construction support function. Four warehouses face Spur B,

and a U-shaped administration building is located at the eastern end of the spur.

Spurs C and D are probably the spurs which will serve the primary operational function of the installation when the entire installation is completed. Spur C is 470 feet from Spur B and has two tracks for part of its length. Two earthmounded POL tanks are located at the eastern end of the spur. A small probable steamplant is located next to the tanks.

Spur D is 230 feet from Spur C and may also have double tracks. At the eastern end of the spur, a probable train shed is parallel to one spur and possibly covers a second. The shed

section attached to the eastern end. At the west end of the spur there is a 315-by 60-foot building, as yet unroofed. On photography of February 1964, three rail cars were standing on the track in front of the long shed.

The shortest straight section of any spur is 2,200 feet (Spur C), and all turns are of sufficiently wide radii to accommodate very sizable rail cars.

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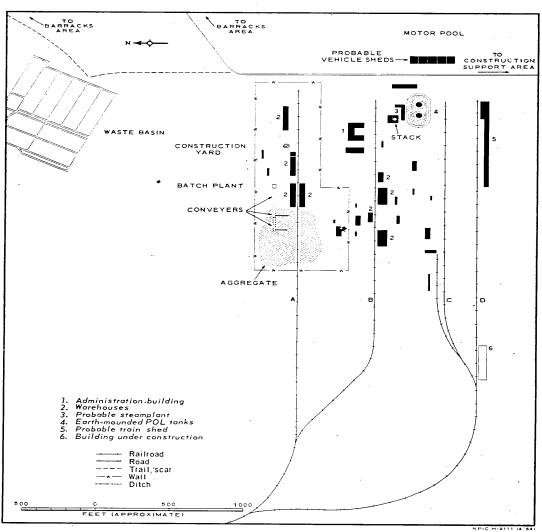


FIGURE 8. RAIL FACILITY.

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OTHER AREAS

Other areas of the Bulyzhino installation include a construction support area, a barracks area, a motor pool, and a waste basin.

Construction Support Area (Figure 2). This area, located between the Rail Facility and the Operations Area, provides housing for the labor force engaged in construction. The fenced area contains eight large barracks 'dormitory buildings, a T-shaped messhall, and a multistory barracks 'administration building,

A number of smaller buildings are at scattered locations in the nearby woods.

Barracks Area (Figure 2). This area is located approximately 4,200 feet northeast of the Rail Facility. It contains two groups of four

multistory barracks,

Six of the barracks appear completed, one nearly completed, and one half completed. The area also contains a U-shaped administration building measuring 215 feet long with wings measuring 80 by 55 feet each, an H-shaped messhall,

and several smaller miscellaneous buildings. Immediately south of the Barracks Area is a group

of small buildings which may be two-family units. These buildings cannot be counted or measured because of tree cover. A water tower or standpipe is located just east of the Barracks Area.

Motor Pool (Figure 8). The Motor Pool occupies a 4.5-acre cleared area opposite the Rail Facility immediately east of the service road. A row of five abutting buildings, probably vehicle sheds, each measuring 55 by 55 feet, lies within the cleared area parallel to the service road. A large number of probable vehicles appear to have been parked in rows east of the probable vehicle sheds on photography of February 1964.

Waste Basin (Figure 8). A large waste basin is located st north of the Rail Facility. The basin measures approximately 750 feet square and is divided into 10 ponds of approximately equal size. Melted areas in five of the ponds indicate that extensive use is being made of the facility. A curving earth scar leads from the Barracks Area to the waste basin and a second scar leads south from the waste basin and is lost where it joins the main service road.

COMPARISON OF INSTALLATIONS

The function of the Bulyzhino installation appears to be identical to that of six other generally similar installations (Table 1). These installations, all of which are located within the European USSR, are at Rechitsa, Zhukovka, Mikhaylovka, Borisoglebsk, Nyandoma, and Chaadayevka (Figure 1). They differ only in internal arrangement. A determination of the function of the Bulyzhino installation would also solve the problems of identification at the other six installations. It may be a very significant fact that none of these installations are SAMdefended per se. However, the Zhukovka and Chaadayevka installations are located near the SAM defenses of the cities of

Bryansk and Penza.	

Table 1. List of Bulyzhino-type Installations

Reference Place	Distance From Town	Coord	inates
Bulyzhino	5.5 nm SW	56-13N	28-18E
Rechitsa	12 nm NW	52-27N	30-04E
Zhukovka	7 nm ENE	53-33N	33-56E
Mikhaylovka (BE & MCI: Kremenchug)	5 nm W	48-50N	32-17E
Borisoglebsk	7 nm NW	51-24N	41-57E
Nyandoma	5 nm SE	61-36N	40-20E
Chaadayevka	4 nm ENE	53-07N	46-02E

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Golovchino and Chebsara $1/$, although there are also some dissimilarities. A comparison follows.	substantial, certain dissimilarities must be considered.	* .
SIMILARITIES The chief similarities between the installation at Bulyzhino and the sites at Golovchino and Chebsara are features in the operations areas of the installations: 1. Number of Bunkers. Five bunkers and probable preparations for constructing a sixth bunker were observed at Bulyzhino; six bunkers have been observed at Golovchino; five bunkers at Chebsara.		
	2. Rail Facilities. A candelabra configuration of rail spurs exist at the Fulyzhino, Rechitsa, Nyandoma, and Chaadayevka installations and variations of this configuration are observed at the other three (Zhukovka, Mikhaylovka, and Borisoglebsk) similar installations. The rail facility at Borisoglebsk is an adaptation of one that existed before the installation was started. The rail facilities at Golovchino and	'
3. Service by Loop Road. The bunkers in an operations area are served by a loop road.	Chebsara do not have the candelabra configura- tion. The facility at Chebsara appears to be a single group of operational spurs generally similar to those observed at the Bulyzhino-type installations, although it is smaller. The fea- tures of the rail service at Golovchino cannot be determined or compared because of poor photo quality.	1
DISSIMILARITIES While the similarities between the Bulyzhino installation	The disparity between rail features of the Bulyzhino-type installations and those of other installations does not necessarily negate an identity of purpose. The earliest observation of	
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me rail facility at the Nyandoma installation uggested an ICBM association because of the andelabra rail facility associated with all ICBM omplexes. However, subsequent development of the installations has ruled out this suggestion. Despite the elaborateness of the rail facilities at the Bulyzhino-type installations, there is to evidence of transloading facilities. At the Bulyzhino installation where two of the bunkers are been completed, it would seem that a transpoading facility to serve the completed bunkers would have been installed and be operational by this time if the functioning of the installation rejuired such a facility. A road/railtransloading acility is normally designed to provide a conenient and rapid means of transferring material etween road vehicles and rail cars.	was observed in August 1960. The latest photography shows that the operations area at Nyandoma was nearly as advanced as the one at Bulyzhino. In comparison, the probable nuclear weapons stockpile site at Chebsara was in an early stage of construction in August 1960; the latest photography also showed it to be at about the same stage of completion as the installation at Bulyzhino. However, the probable nuclear weapons stockpile site at Golovchino, which was also under construction in August 1960, was operational by November 1962. If the seven Bulyzhino-type installations and the sites at Golovchino and Chebsara perform the same function, it would not seem logical that construction of one installation would be pushed to completion while construction of the others would follow at a leisurely pace. 4. Housing. Variations in the size and type of housing are notable. At Golovchino, the housing area consists of five barracks/apartment-type buildings and 25 single-story houses. Sixteen barracks/apartment buildings and approximately 15 single-story houses are in the
3. Phasing of Construction. A similar chasing of construction was generally observed at all seven of the Bulyzhino-type installations. The first observation of any of these installations was at 'Nyandoma where the rail facility	main support area at Chebsara. At Bulyzhino, there are eight typical military barracks and several single-story houses, which is consistent with housing at the other six installations.
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